Slime and staining (also known as 'biofilms')

United Utilities
Water for the North West

Bacteria and fungi present naturally in air and water can attach to damp surfaces and multiply to form a visible black slime or stain in various colours (black, red, pink).

These growths are known as biofilms or 'microbial slime' and are most noticeable in bathrooms and kitchens. If not dealt with at their onset some biofilms can grow into certain materials and become a permanent feature.

What are biofilms?

Biofilms contain bacteria and fungi that have grown and multiplied on a surface. To grow, bacteria and fungi require water and a source of food. If both are present on the surface then the organisms will grow and multiply to produce a grey/black jelly-like (slime) growth or produce a pink/red staining.

Some species of bacteria and fungi that survive in biofilms around taps and on pipes produce compounds that can give an earthy or musty flavour to the water.

Where do biofilms occur?

Biofilms can form on any surface that comes into contact with water. They are commonly found:

- on the inside of cold water taps
- around the base of tap fittings
- in shower heads and on shower curtains
- on tiles in the bathroom/shower area
- in and around drains and plugholes
- in toilet cisterns and toilet bowls
- in refrigerator drip trays
- in dehumidifiers
- in washing machines particularly around the powder drawer and the rubber seals

Are biofilms harmful?

Although these biofilms can appear very unpleasant they are generally harmless and do not pose a risk to health.

What can I do to prevent growth?

Bacteria and fungi require water and nutrients to enable them to multiply and grow. The best way to prevent growth is to improve ventilation to allow these damp areas in kitchens and bathrooms to dry rapidly. It is also important to reduce the amount of food available for the bacteria and fungi. Food sources can include shampoo, soaps, propellants from hair spray and deodorants, and general kitchen food. Keeping the areas clean and free from potential food sources will restrict growth.

Certain plumbing materials can also promote growth of the biofilm, for example rubber washers in taps. Simply changing the washer for a non-rubber material can reduce the amount of biofilm.

The organisms attach and grow more rapidly on rough surfaces such as limescale. Limescale can be removed using a solution of sodium bicarbonate (bicarbonate of soda), clear vinegar or a proprietary cleaning product.

The use of in-line filters and softeners can also encourage biofilm growth. It is important that if in-line filters or softeners are used they are serviced according to the manufacturer's instructions.

What can I do to remove growth?

Black slime associated with tap fittings can be removed by cleaning the inside of the tap or around the base of the tap with a small brush dipped in a mild solution of bleach.

Kitchen surfaces and bathroom fittings can be wiped with a household cleaner or mild bleach solution that will kill the bacteria and fungal spores.

Staining

Occasionally other sorts of stains can be observed which are not due to biofilms but due to fine particulate material.

Green/blue - copper

Purple/black - manganese, lead

Brown/rusty - iron

White/brown - calcium carbonate

The presence of this material is likely to be associated with a disturbance in the property or distribution system. Generally such deposits can be rinsed away.

Your water quality

If you're interested in finding out more about the quality of your drinking water, please visit **unitedutilities.com/waterquality** and enter your postcode. We'll tell you where your water comes from, together with other information such as its hardness.

For further information

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The Drinking Water Inspectorate is responsible for regulating the quality of public water supplies.

Visit their website at: **www.dwi.gov.uk**

United Utilities

Water for the North West

About us

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